

## CLAIMS

5     What is claimed is:

1.     A method for action selection based upon an objective of an outcome relative to a subject, said method comprising the steps of:

- a) acquiring and storing a training set, said training set an existent database of information, wherein said information are attributes of said subject, wherein said training set is to provide a base of data for said method;
- b) calculating and storing a best behavioral model for predicting said outcome, provided an action is applied to said subject;
- c) mapping of said training set to said best behavioral model within a business metric space, wherein said mapping is subsequently stored;
- d) selecting and storing a random sub-sample of said training set said mapped to said best behavioral model, said random sub-sample for reducing computational requirements when determining an optimized strategy; and
- e) determining and storing said optimized strategy for said random sub-sample, said optimized strategy for providing an optimal action relative to said subject for said objective of said outcome.

2.     The method for action selection based upon an objective of an outcome relative to a subject as recited in Claim 1 wherein said subject is a customer of a business entity, said business entity enabled to interact with said customer in a web based environment, and wherein said action is a promotion offered by said business entity.

3. The method for action selection based upon an objective of an outcome relative to a subject as recited in Claim 1 wherein step a) further comprises the step of:

5. allocating a dimensional attribute vector relative to each subject referenced in said training set.

4. The method for action selection based upon an objective of an outcome relative to a subject as recited in Claim 1 wherein step b) further comprises the step of:

10. deriving a function from said action being applied to said subject, wherein said function equates to said best behavioral model and said function is represented as a dimensional vector.

15. The method for action selection based upon an objective of an outcome relative to a subject as recited in Claim 1 wherein said subject of said training set said mapped is a separate point in said business metric space.

20. The method for action selection based upon an objective of an outcome relative to a subject as recited in Claim 1 wherein step e) further comprises the step of:

25. utilizing linear programming to calculate said optimal action, wherein said optimal action is associated with the largest number of subjects.

30. The method for action selection based upon an objective of an outcome relative to a subject as recited in Claim 1 wherein said optimized strategy provides a logical division for classification of said subject, so as to determine said optimal action of said objective of an outcome, relative to said subject.

8. The method for action selection based upon an objective of an outcome relative to a subject as recited in Claim 1 wherein a new subject, said new subject not from said training set, is mapped to said best behavioral model and said stored optimized strategy, such that said 5 new subject is included in said classification of said logical division, so as to provide an optimal action for said objective of said outcome, relative to said new subject.

9. A computer system in a computer network, said computer system comprising:

10 a bus;

11 a memory unit coupled to said bus; and

12 at least one processor coupled to said bus, said at least one processor for executing a method for action selection based upon an 15 objective of an outcome relative to a subject, said method comprising the steps of;

16 a) acquiring and storing a training set, said training set an existent database of information, said information are attributes of said subject, wherein said training set is to provide a base of data for said 20 method;

17 b) calculating and storing a best behavioral model for predicting said outcome, provided an action is applied to said subject;

18 c) mapping of said training set to said best behavioral model within a business metric space, wherein said mapping is subsequently 25 stored;

19 d) selecting and storing a random sub-sample of said training set said mapped to said best behavioral model, said random sub-sample for reducing computational requirements when determining an optimized strategy; and

20 e) determining and storing said optimized strategy for said random sub-sample, said optimized strategy for providing an optimal action relative to said subject for said objective of said outcome.

10. The computer system of Claim 9 wherein said subject is a customer of a business entity, said business entity enabled to interact with said customer in a web based environment, and wherein said 5 action is a promotion offered by said business entity.

11. The computer system of Claim 9 wherein said step a) of the method for action selection based upon an objective of an outcome relative to a subject further comprises the step of:

10 allocating a dimensional attribute vector relative to each subject referenced in said database.

12. The computer system of Clam 9 wherein said step b) of the method for action selection based upon an objective of an outcome 15 relative to a subject further comprises the step of:

deriving a function from said action being applied to said subject, wherein said function equates to said best behavioral model and wherein said function is represented as a dimensional vector.

20 13. The computer system of Claim 9 wherein said subject of said training set said mapped is a separate point in said business metric space.

14. The computer system of Claim 9 wherein said step e) of the 25 method for action selection based upon an objective of an outcome relative to a subject further comprises the step of:

utilizing linear programming to calculate said optimal action, wherein said optimal action is associated with the largest number of subjects.

30 15. The computer system of Claim 9 wherein said optimized strategy provides a logical division for classification of said subject, so as

to determine said optimal action of said objective of said outcome, relative to said subject.

16. The computer system of Claim 9 wherein a new subject, 5 said new subject not from said training set, is mapped to said best behavioral model and said optimized strategy, such that said new subject is included in said classification of said logical divisions, so as to provide an optimal action for said objective of said outcome, relative to said new subject.

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17. A computer readable medium for storing computer implemented instructions, said instructions for causing a computer system to perform the steps of:

- a) acquiring and storing a training set, said training set an existent database of information, said information are attributes of said subject, wherein said training set is to provide a base of data for said method;
- b) calculating and storing a best behavioral model for predicting said outcome, provided an action is applied to said subject;
- c) mapping of said training set to said best behavioral model within a business metric space, wherein said mapping is subsequently stored;
- d) selecting and storing a random sub-sample of said training set said mapped to said best behavioral model, said random sub-sample utilized for reducing computational requirements when determining an optimized strategy; and
- e) determining and storing said optimized strategy for said random sub-sample, said optimized strategy for providing an optimal action relative to said subject for said objective of said outcome.

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18. The computer readable medium of Claim 17 wherein said subject is a customer of a business entity, said business entity enabled to interact with said customer in a web based environment, and wherein said action is a promotion offered by said business entity.

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19. The computer readable medium of Claim 17 wherein said computer implemented instructions cause a computer system to perform the step of:

10 allocating a dimensional attribute vector relative to each subject referenced in said training set.

20. The computer readable medium of Claim 17 wherein said computer implemented instructions cause a computer system to perform the step of:

15 deriving a function from said action being applied to said subject, wherein said function equates to said best behavioral model, and wherein said function is represented as a dimensional vector.

21. The computer readable medium of Claim 17 wherein said subject of said training set is mapped to a separate point within said business metric space.

22. The computer readable medium of Claim 17 wherein said computer implemented instructions cause a computer system to perform the step of:

25 utilizing linear programming to calculate said optimal action, wherein said optimal action is associated with the largest number of subjects.

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23. The computer readable medium of Claim 17 wherein said optimized strategy provides a logical division for classification of said subject, so as to determine said optimal action of said objective of said outcome, relative to said subject.

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24. The computer readable medium of Claim 17 wherein a new subject, said new subject not from said training set, is mapped to said best behavioral model and said optimized strategy, such that said new subject is included in said classification of said logical division, so as to provide an optimal action for said objective of said outcome, relative to said new subject.

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